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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,607	11/15/2001	Hongyong Zhang	740756-2395	7367

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EXAMINER

HOGANS, DAVID L

ART UNIT	PAPER NUMBER
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2813

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DATE MAILED: 05/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,607

Applicant(s)

ZHANG, HONGYONG

Examiner

David L. Hogans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-5 and 15-18 are rejected under the judicially created doctrine of double patenting over claims 1-4, respectively, of U. S. Patent No. 5,814,529 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Claim 1 – an interlayer insulator comprising at least upper and lower layers each comprising different etch characteristics; etching upper insulating layer, wherein lower layer is used as an etch stopper; using a second mask to selectively etch the lower layer; and selectively etching the lower layer to form a contact hole.

Claims 2 and 5 – forming a first conductive film on a gate insulating film; patterning the conductive film to form a gate electrode; an interlayer insulator comprising at least two layers on the gate insulating film (Examiner notes the

comprising at least two layers on the gate insulating film (Examiner notes the equivalence of forming an insulative layer or an insulative layer with at least two layers); remove a part of the upper insulative layer, the part being located over at least one of the source or drain; forming a contact hole through the insulating layer to at least one of the source or drain; forming a second conductive film; patterning the second conductive film to form a pixel electrode; forming a third conductive film; and patterning the third conductive film to form at least one of a source and drain electrode that is in contact with the pixel electrode.

Claims 3, 15, 16, 17 and 18 - forming a first conductive film comprising aluminum on a gate insulating film; patterning the conductive film to form a gate electrode; anodizing the gate electrode; an interlayer insulator comprising at least two layers on the gate insulating film; remove a part of the upper insulative layer, the part being located over at least one of the source or drain; forming a contact hole through the insulating layer to at least one of the source or drain; forming a second conductive film; patterning the second conductive film to form a pixel electrode; forming a third conductive film; and patterning the third conductive film to form at least one of a source and drain electrode that is in contact with the pixel electrode.

Claim 4 - forming a first conductive film on a gate insulating film; patterning the conductive film to form a gate electrode; an interlayer insulator comprising at least two layers on the gate insulating film; remove a part of the upper insulative layer, the part being located over at least one of the source or drain; forming a contact hole through the insulating layer to at least one of the source or drain; forming a second conductive

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film; patterning the second conductive film to form a pixel electrode; forming a third conductive film; and patterning the third conductive film to form at least one of a source and drain electrode that is in contact with the pixel electrode, wherein the contact hole is formed smaller than the part.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

3. Claims 6-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 5,814,529 in view of 5,504,029 to Murata et al.

Incorporating all arguments of Claims 1-5 and noting that Zhang fails to teach an insulative layer comprised of silicon oxide and silicon nitride.

However, Murata et al., in column 17 lines 3-8, teaches an insulating layer comprised of silicon oxide and silicon nitride.

It would have been obvious to one of ordinary skill in the art to modify Zhang in view of Murata et al. because silicon oxide and silicon nitride are well known and conventionally used within the art as insulating layers.

4. Claims 11-14 and 19-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-4 of U.S. Patent No. 5,814,529 to Zhang in view of Re 33,829 to Castleberry.

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Incorporating all arguments of Claims 1-5 and noting that Zhang (529) fails to teach a pixel electrode comprised of indium tin oxide within a liquid crystal display device.

However, Castleberry, in column 6 lines 12-25, teaches the use of a pixel electrode comprised of indium tin oxide within a liquid crystal display device. Furthermore, Castleberry notes that one would employ indium tin oxide, due to its transparency properties, as an electrode within a LCD device, thereby allowing the propagation of light through the electrode.

It would have been obvious to one of ordinary skill in the art to modify Zhang's teachings in view of Castleberry's teachings of a pixel electrode comprised of indium tin oxide within a liquid crystal display device. Zhang's modification via Castleberry's teachings is obvious because indium tin oxide is well known and conventionally used within the art as a transparent electrode in a liquid crystal display device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Hogans whose telephone number is (703) 305-3361. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (703) 306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



Doug Wille
Patent Examiner

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April 24, 2002